

WHAT IS CLAIMED IS:

1. A printed circuit board-producing ink comprising a dispersion of fine particles of a metal oxide or hydroxide, at least part of said fine particles of a metal oxide or hydroxide being reduced to a metal by energy irradiation.
2. The printed circuit board-producing ink of claim 1, wherein said dispersion comprises a reducing agent that has substantially no reducing activity to said fine particles of a metal oxide or hydroxide at room temperature but can exhibit said reducing activity by energy irradiation.
3. The printed circuit board-producing ink of claim 2, wherein said reducing agent is at least one compound selected from the group consisting of organic reducing agents, hydrazine and hydroxylamine.
4. The printed circuit board-producing ink of claim 3, wherein said organic reducing agent is at least one organic compound selected from the group consisting of hydrazine derivatives, hydroxylamine derivatives, alkanolamines, diols, and compounds represented by the general formula of  $X-(A=B)_n-Y$ , wherein each of A and B represents a carbon or nitrogen atom, each of X and Y represents an atomic group having an atom with a lone electron pair bonded to A or B, and  $n$  represents 0 to 3.
5. The printed circuit board-producing ink of claim 1, wherein a metal constituting said fine particles of a metal oxide or hydroxide is at least one selected from the group consisting of Au, Ag, Cu, Pt, Pd, In, Ga, Sn, Ge, Sb, Pb, Zn, Bi, Fe, Ni and Co.
6. A method for producing a printed circuit board comprising the steps of drawing a conductive pattern on a substrate by an ink comprising a dispersion of fine particles of a metal oxide or hydroxide; and reducing at least part of said fine particles of a metal oxide or hydroxide to a metal to form a conductive pattern.

7. The method of claim 6, wherein said pattern is drawn by said ink according to a pattern information stored in a computer.
8. The method of claim 6, wherein energy irradiation is conducted in the process of forming said conductive pattern.
- 5 9. The method of claim 6, wherein the formation of said conductive pattern is conducted in an inert gas.
10. A printed circuit board produced by the method of claim 6.
11. A printed circuit board-producing ink having at least two liquid parts comprising a dispersion of fine particles of a metal oxide or  
10 hydroxide, and a reducing agent having a reducing activity to said fine particles of a metal oxide or hydroxide or its solution, wherein by mixing said liquid parts, at least part of said fine particles of a metal oxide or hydroxide are reduced to a metal.
12. The printed circuit board-producing ink of claim 11, wherein said  
15 reducing agent is at least one compound selected from the group consisting of organic reducing agents, hydrazine and hydroxylamine.
13. The printed circuit board-producing ink of claim 12, wherein said organic reducing agent is at least one organic compound selected from the group consisting of hydrazine derivatives, hydroxylamine derivatives,  
20 alkanolamines, diols, and compounds represented by the general formula of  $X-(A=B)_n-Y$ , wherein each of A and B represents a carbon or nitrogen atom, each of X and Y represents an atomic group having an atom with a lone electron pair bonded to A or B, and  $n$  represents 0 to 3.
14. The printed circuit board-producing ink of claim 11, wherein a  
25 metal constituting said fine particles of a metal oxide or hydroxide is at least one selected from the group consisting of Au, Ag, Cu, Pt, Pd, In, Ga, Sn, Ge, Sb, Pb, Zn, Bi, Fe, Ni and Co.
15. A method for producing a printed circuit board comprising the steps

of drawing a pattern on a substrate by an ink having at least two liquid parts comprising a dispersion of fine particles of a metal oxide or hydroxide, and a reducing agent having a reducing activity to said fine particles of a metal oxide or hydroxide or its solution; and reducing at least part of said fine  
5 particles of a metal oxide or hydroxide to a metal to form a conductive pattern.

16. The method of claim 15, wherein said pattern is drawn by said ink according to a pattern information stored in a computer.

17. The method of claim 15, wherein energy irradiation is conducted in  
10 the process of forming said conductive pattern.

18. The method of claim 15, wherein the formation of said conductive pattern is conducted in an inert gas.

19. A printed circuit board produced by the method of claim 15.